

EXHIBIT

48

Expert Report of Allan M. Parnell, Ph.D.

National Association for the Advancement of Colored People, Inc. et al. v. City of Myrtle Beach, et al.

I. Scope of Assignment and Synopsis of Conclusions

I was asked to assess the racial composition of the visitors to Myrtle Beach during the 2017 Myrtle Beach Bike Week Spring Rally (“Harley Week”) held May 15-21, 2017, and the 2017 Black Bike Week Rally (“Black Bike Week”) held May 26-29, 2017.

Attendees at Harley Week were majority White (71.3% of the total). Attendees at Black Bike Week were majority Black (86% of the total).

II. Qualifications

My name is Allan McMillan Parnell. A copy of my *curriculum vitae* accompanies this report as Exhibit 1.

I am Vice President and Research Director of the Cedar Grove Institute for Sustainable Communities, a not-for-profit research organization that specializes in demographic and policy analyses with a focus on community development, discrimination in housing policies, and issues of social equity, including analysis of disparities in access to public infrastructure. I am also Senior Fellow at the Frank Hawkins Kenan Institute on Private Enterprise at the University of North Carolina at Chapel Hill and President of McMillan and Moss Research, Inc.

I received a Ph.D. in sociology with a specialization in demography from the University of North Carolina at Chapel Hill in 1987. During my career, I have conducted and published research on a range of issues, taught at the graduate and undergraduate levels, consulted on demographic analyses, and worked as an expert in cases on housing discrimination and spatial disparities. I have been a Research Associate on the Committee on Population at the National

Academy of Sciences, on the faculty in the Sociology Department at Duke University, a Senior Fellow at the Duke Center for Demographic Studies, and a Research Associate at the Carolina Population Center at the University of North Carolina at Chapel Hill. I have been the Principal Investigator on peer-reviewed grants from the National Institute of Child Health and Human Development (NICHD) and the National Institute on Aging (NIA).

III. Hourly Rate

For work related to preparing this report and for all other work other than testimony, my fee is \$250 per hour plus reimbursable expenses. For testimony at deposition and trial, my fee is \$350 per hour plus reimbursable expenses. No portion of these fees was or is dependent on the nature of my findings or on the outcome of the case.

IV. Previous Experience as an Expert Witness

I have provided deposition and trial testimony as an expert witness in several federal housing or civil rights cases, including the 2015 case in which the Supreme Court of the United States affirmed that disparate impact claims are cognizable under the Fair Housing Act.

Inclusive Communities Project, Inc. v. Texas Dep’t of Housing and Community Affairs, No. 3:08-CV-0546-D (N.D. Tex. filed Mar. 28, 2008); *aff’d*, 576 U.S. 135 S.Ct. 2507 (2015). *See also Inclusive Communities Project, Inc. v. Town of Flower Mound, Texas*, No. 4:08-CV-433 (E.D. Tex. filed Nov. 19, 2008); *Anderson Group, LLC v. City of Saratoga Springs*, No. 05-CV-1369 GLS/DRH (N.D.N.Y. filed Oct. 28, 2005); *Kennedy v. City of Zanesville*, No. 2:03-CV-1047 (S.D. Ohio filed Nov. 13, 2003); *Everett v. Pitt County Board of Education*, No. 6:69-CV-702-H (E.D.N.C. filed Nov. 12, 1969); *BBC Baymeadows, LLC v. City of Ridgeland*, No. 3:14-cv-676 (S.D. Miss. filed Aug. 29, 2014); *Antonia Manuel v. City of Lake Worth*, No. 9:06-cv-81143 (S.D. Fla. filed Dec. 12, 2006); *Independent Living Center of Southern California, et al. v. City*

of Los Angeles, et al., No. 12-CV-0051 (C.D. Cal. filed Jan. 13, 2012); and *Sunchase of Ridgeland, Ltd. et al. v. City of Ridgeland*, No: 3:14-cv-00938-HTW (S.D. Miss. filed Dec. 8, 2014).

I have provided deposition testimony as an expert witness in three additional federal housing or civil rights cases, two of which are still pending: *Fortune Society, Inc. v. Sandcastle Towers Housing Development Fund Corp.*, No. 1:14-cv-6410 (E.D.N.Y. filed Oct. 30, 2014); *Maurice A. Alexander v. Edgewood Management Corporation et al.*, No. 1:15-cv-01140-RCL (D.D.C. filed July 16, 2015); and *CWK Investments – Hillsdale, LLC v. Town of Darmstadt, et al.*, No. 3:17-cv-00133-RLY-MPB (S.D. Ind. Filed Aug. 28, 2017).

V. Documents and Information Reviewed/Relied On in Preparation for This Report

1. Complaint in *National Association for the Advancement of Colored People, Inc. et al. v. City of Myrtle Beach, et al.*
2. Timnit Gebru, et al. “Using Deep Learning and Google Street View to Estimate the Demographic Makeup of Neighborhoods Across the United States.” *Proceedings of the National Academy of Sciences* 114(50) pp. 13108–3113, 2017.
3. Photographs with dates and locations taken at the 2017 Harley Week and the 2017 Black Bike Week.
4. Race classifications of all photographs made by three independent assessors.

VI. Report

I was asked to assess the racial composition of the visitors to Myrtle Beach during the 2017 Myrtle Beach Bike Week Spring Rally (“Harley Week”) held May 15-21, 2017, and the 2017 Black Bike Week Rally held May 26-29, 2017.

To determine the racial composition of these two bike rallies, I designed a plan to systematically photograph attendees on the sidewalks and in the streets at three central locations in Myrtle Beach. The method is simpler in technology but conceptually based on the growing field of computer vision and pattern recognition. Notably, Google Street View is being used in public health, criminology and demographic research to understand the demographic composition of neighborhoods and communities.¹

The photographs were taken by individuals located at pre-designated sites in Myrtle Beach (“Photographers”). Three separate individuals (“Reviewers”) each independently assessed each photograph and counted and classified individuals in the photographs as White, Black, Other Race, or unknown (unable to identify because the faces were not clear to Reviewers due to insufficient light, angle of the head, and other factors). The classifications from the three Reviewers are the basis for the final result.

I met with and trained the Photographers on May 2, 2017 prior to the Harley Week and Black Bike Week rallies.

Three sites on Ocean Boulevard in central Myrtle Beach were identified as possible locations for this study and the photographers assessed the proposed locations on May 25, 2017, to confirm that light was adequate and there were no physical obstacles to taking photographs. The three sites used were: North Ocean Boulevard and 14th Avenue North, South Ocean Boulevard and 2nd Avenue South, and North Ocean Boulevard and 9th Avenue North.

On May 19 and 20, 2017 during Harley Week and on May 26 and 27, 2017 during Black Bike Week, the Photographers took photographs at each location. The design called for two

¹ A recent example of a demographic analysis using this photographic approach is “Using Deep Learning and Google Street View to Estimate the Demographic Makeup of Neighborhoods Across the United States.” Timnit Gebru, et al. *Proceedings of the National Academy of Sciences* 114(50) pp. 13108–13113, 2017.

Photographers at each site. However, on May 19, only five Photographers were available and no pictures were taken at North Ocean Boulevard and 14th Avenue N. The absence of these photos at this site does not materially affect the reliability of the results of the study.

Using tripod-mounted digital cameras, photographs were taken every five minutes from 8:00 PM to 11:00 PM of both the people on the sidewalks and the people in the streets. Each photograph is identified by time and location.

All of the digital photographs were sent to me. Excel sheets for each date and location were sent to me with the photograph dates and times in the first column. The complete files of photographs and corresponding excel sheets were given to the Reviewers. Their instructions were to:

classify the race of clearly identifiable individuals in each photograph as White, Black, Other Race (e.g. Asian) or Unknown, and to enter the total for each racial category. Classify only clearly identifiable individuals based on their faces. If you are not sure, use “Unknown.”

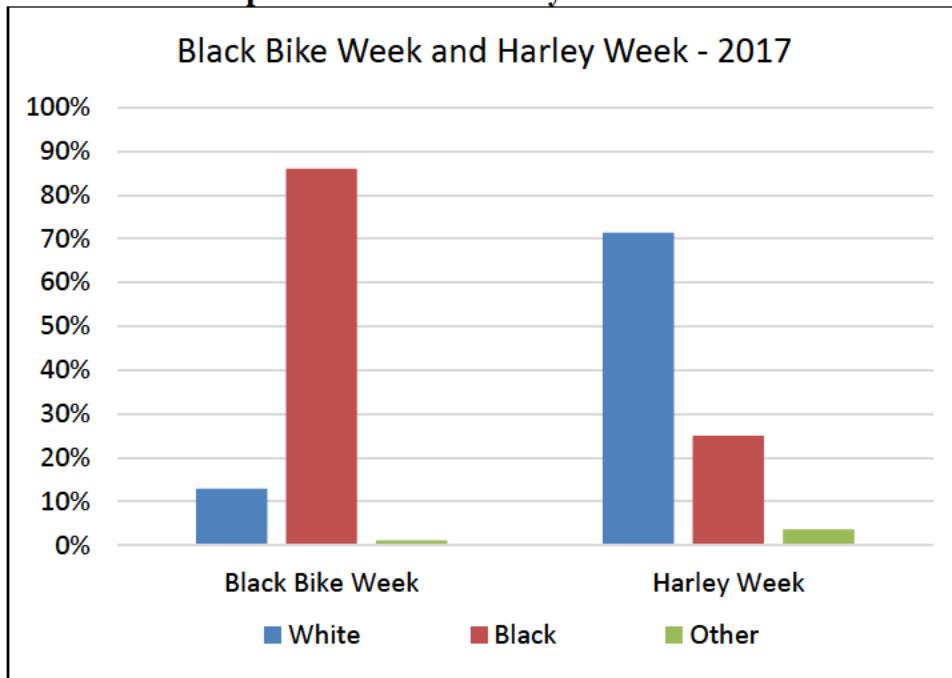
To determine the racial composition at the two events, I added up the number of individuals identified as White, Black and Other Races for all three Reviewers. I then divided the number in each racial group by the sum across all three racial categories (White, Black, and Other). The individuals whose race could not be classified and were identified as Unknown were not included in the counts or calculations.

Attendees at Harley Week were majority White. There were 2,395 Whites identified, 71.3% (2,395/3,357) of the total. There were 840 Blacks identified, 25% (840/3,357) of the total. There were 122 individuals categorized as Other, 3.6% (122/3,357) of the total.

Attendees at Black Bike Week were majority Black. There were 5,563 Blacks identified, 86% (5,563/6,470) of the total. There were 833 Whites identified, 12.9% (833/6,470) of the total. There were 74 individuals identified as Other, 1.1% (74/6,470) of the total.

A comparison of the racial composition of those attending the 2017 Harley Week and the 2017 Black Bike Week is shown in Figure 1.

Figure 1: Racial Composition at 2017 Harley Week and 2017 Black Bike Week



VII. Conclusion

I designed and supervised the systematic collection of photographs of attendees at 2017 Myrtle Beach Bike Week Spring Rally (“Harley Week”) held May 15-21, 2017, and the 2017 Black Bike Week Rally held May 26-29, 2017. The races of individuals in the sets of photographs were independently classified by three individuals. I then averaged the reports of these three individuals.

Based on the race of those attending the 2017 Harley Week and the 2017 Black Bike Week, the rallies are racially identifiable events. Harley Week 2017 was predominantly white (71.3% of attendees) and Black Bike Week 2017 was predominantly black (86% of attendees).



Allan M. Parnell

12/17/2018
Date

Exhibit 1

CURRICULUM VITAE

Allan McMillan Parnell

Cedar Grove Institute for Sustainable Communities
McMillan and Moss Research, Inc.
6919 Lee Street
Mebane, North Carolina 27302
919 563 5899
allanmparnell@gmail.com

Education

Ph.D. University of North Carolina at Chapel Hill, 1987 (Sociology).
M.A. University of North Carolina at Chapel Hill, 1982 (Sociology).
A.B. University of North Carolina at Chapel Hill, 1976, (Geography) with Honors.

Professional Experience

President, McMillan and Moss Research, Inc., 1998–current.

Vice-President and Research Director, Cedar Grove Institute for Sustainable Communities, 2001–current.

Senior Fellow, Frank Hawkins Center of Private Enterprise, University of North Carolina at Chapel Hill, 2014–present.

Adjunct Instructor, University of North Carolina Law School, January 2005–2007.

Research Associate, Carolina Population Center, University of North Carolina at Chapel Hill, 1998–2004.

Assistant Professor, Department of Sociology, and Senior Fellow, Center for Demographic Studies, Duke University, 1990–1998.

Visiting Scholar, Carolina Population Center, University of North Carolina at Chapel Hill, 1989–1990.

Research Associate, Committee on Population, National Academy of Sciences. Washington, DC, 1988–1989.

Visiting Research Associate, East-West Population Institute, East-West Center and Visiting Assistant Professor of Sociology, University of Hawaii. Honolulu, Hawaii, 1987.

Publications

“The Challenges and Opportunities of the American Demographic Shift.” 2017. James H. Johnson, Jr. and Allan M. Parnell. *Generations* 40(4): 9–16.

“Federal Farmworker Housing Standards and Regulations, Their Promise and Limitations, and Implications for Farmworker Health.” 2015. AM Joyner, L George, ML Hall, IJ Jacobs, ED Kissam, S Latin, AM Parnell, V Ruiz, N Shahdeh and J Tobacman. *New Solutions* 25(3): 334–352.

“Maximizing the Power of Geographic Information Systems for Racial Justice.” 2013. Ann Moss Joyner and Allan Parnell. *Clearinghouse Review*, 47(5-6).

“Aging in Place in the Carolinas: Demographic Highlights, Programmatic Challenges and Opportunities.” 2013. James H. Johnson, Jr. and Allan M. Parnell. The Duke Endowment. <http://dukeendowment.org/sites/default/files/media/files/Aging%20in%20Place%20White%20Paper%202013%20v2.pdf>.

“Institutionalization of Racial Inequality in Local Political Geographies: The Use of GIS Evidence.” 2010. Ben Marsh, Allan M. Parnell, and Ann Moss Joyner. *Urban Geography* 31(5).

“The Changing Face of Poverty in America.” 2006. Johnson, James H., Jr. and Allan M. Parnell. Battleground: Economics and Business. ML Walden (ed.), Praeger.

“Minority Exclusion in Small Town America.” 2006. Johnson, James H., Jr., Ann Moss Joyner and Allan M. Parnell. Poverty and Race in America: Emerging Agendas, pp. 20-24. Chester Hartman (ed.), New York: Lexington Books.

“Minority Exclusion in Small Towns.” 2005. Johnson, James H., Jr., Ann Moss Joyner and Allan M. Parnell. *Poverty & Race* 14.

“Racial Apartheid in a Small North Carolina Town.” 2004. Johnson, James H Jr., Allan M. Parnell, Ben Marsh, Ann Moss Joyner and Carolyn R. Christman. *Review of Black Political Economy* 31(1).

“Further Examination of a Natural Experiment: Access to Abortion in North Carolina 1989-1996.” 2002. S. Philip Morgan and Allan M. Parnell. *Population Research and Policy Review* 21(4).

“Evaluation of U.S. Mortality Patterns at Old Ages Using the Medicare Enrollment Data Base.” 1999. Allan M. Parnell and Cynthia Owens. *Demographic Research* 1(2).

“The Effects of Short-Term Variation in Abortion Funding on Pregnancy Outcomes.” 1999. Philip J. Cook, Allan M. Parnell, Michael J. Moore and Deanna Pagnini. *Journal of Health Economics* 18: 241–257.

“Seasonality of Abortions in North Carolina: A Population Study.” 1998. Joseph L. Rodgers and Allan M. Parnell. *Journal of Biosocial Sciences* 30.

“Seasonal patterns in adolescent reproductive behaviors.” 1999. Joseph L. Rodgers and Allan M. Parnell. Advances in Population: Psychosocial Perspectives (Vol. 3). Larry Severy and Warren Miller (eds.), London: Jessica Kingsley Publishers.

“Religious Fundamentalism and Family Behavior.” 1997. John Wilson, Allan M. Parnell and Deanna Pagnini. *Research in the Social Scientific Study of Religion* (Vol. 8).

“Demography and Ethnic Conflict.” 1995. C. Gray Swicegood, Gillian Stevens and Allan M. Parnell. Disciplinary Perspectives on Racial and Ethnic Conflict. J. Gittler (ed.), JAI Press.

“Nonmarital pregnancies and marriage in the United States.” 1994. Allan M. Parnell, C. Gray Swicegood and Gillian Stevens. *Social Forces* 73(1): 263–287.

Third World Cities: Problems, Policies and Prospects. 1993. John D. Kasarda and Allan M. Parnell (eds.), SAGE Publications.

“Third World Urban Development Issues.” 1993. John D. Kasarda and Allan M. Parnell. Third World Cities: Problems, Policies and Prospects, pp. ix-xvii. John D. Kasarda (ed), SAGE Publications.

“Disaster, Tradition and Change: Remarriage and Family Reconstitution in a Post-earthquake Community in the People's Republic of China.” 1992. Xiangming Chen, Kejing Dai and Allan M. Parnell. *Journal of Comparative Family Studies* 23:115–132.

“The Determinants of Breastfeeding Practices in Ghana.” 1991. Kofi D. Benefo and Allan M. Parnell. Proceedings of the Demographic and Health Surveys World Conference, pp. 475–496 (Vol. 1). IRD/Macro International Inc.

“Health Consequences of Contraceptive Use and Reproductive Patterns.” 1991. Julie DaVanzo, Allan M. Parnell and William H. Foege. *Journal of the American Medical Association* 265: 2692–2696.

“The Varying Connection Between Marital Status and Fertility in the United States.” 1989. Ronald R. Rindfuss and Allan M. Parnell. *Population and Development Review*, 15:447–470.

Contraceptive Use and Controlled Fertility: Health Issues for Women and Children. 1989. Editor. National Academy Press.

Marriage and Motherhood: Changing Social Relationships in the United States. Ph.D. dissertation, Department of Sociology. University of North Carolina Chapel Hill, 1987.

“Non-marital Childbearing: Diverging Legal and Social Concerns.” 1985. Jo Jones, Joan Kahn, Allan M. Parnell, Ronald R. Rindfuss and Gray Swicegood. *Population and Development Review*, 11:677–693.

“Modern Fertility Patterns: Contrasts Between Japan and the United States.” 1984. S. Philip Morgan, Ronald R. Rindfuss and Allan M. Parnell. *Population and Development Review*, 10:19–40.

“The Timing of Entry into Motherhood in Asia: A Comparative Perspective.” 1983. Ronald R. Rindfuss, Allan M. Parnell and Charles Hirschman. *Population Studies* 37:253–272.

“Breastfeeding and Infant Survival in Egypt.” 1981. Barbara Janowitz, Joann H. Lewis, Allan M. Parnell, F. Hefnawi, M. Younis and G. Serour. *Journal of Biosocial Science* 13:287–297.

Grants

National Institute of Child Health and Human Development. Co-Principal Investigator for Rockingham County, N.C. and Burke County, N.C. National Children’s Study. Barbara Entwistle, PI (University of North Carolina at Chapel Hill) Contract No. HHSN267200700049C. September 28, 2007–September 27, 2014.

National Institute of Child Health and Human Development. Principal Investigator “Racial Segregation in Southern Towns.” R21 HD49394-01A2. \$106,956 (direct costs). October 1, 2006–September 30, 2008.

Z. Smith Reynolds Foundation. Principal Investigator “Racial Disparities in Public Services: GIS Analysis.” \$60,000. July 2003–June 2004.

The Warner Foundation. Co-Investigator, “GIS Analysis of Racial Disparities: Mebane Case Study.” \$18,685. January 2003–June 2003.

National Institute of Child Health and Human Development. Principal Investigator “Changes in Policy and Pregnancy Outcomes.” 2R01HD32134-03A1. \$443,173, 1999–2002; \$436,45, July 1996, June 1998, 2004.

National Institute of Child Health and Human Development. Small Business Innovative Research Grant, Phase 1. Principal Investigator “Health Access GIS Data Base for Women and Children in North Carolina and South Carolina” R43 HD165309-01A1. \$100,000. May–October 1999.

National Institute of Environmental Health Sciences. Small Business Innovative Research Grant, Phase 1, Co-investigator. “Lead Risk Data Base for North Carolina.” R43 HDES09568-01. \$100,000. August, 1999–January, 2000.

National Institute of Aging. Small Business Innovative Research Grant, Phase 1., Co-investigator. "Health Access GIS Data Base for the Elderly in North Carolina and South Carolina." R43 HD36951-01. \$100,000. August, 1999–January, 2000.

James C. Shannon Director's Award. National Institute of Child Health and Human Development. Principal Investigator. "Changes in Abortion Policy on Pregnancy Outcomes." \$100,000. 1994–1996.

National Institute of Aging Research Scientist Development Award. "Family Demography of Aging." \$224,957. 1993–1996.

Duke University Center for Long-Term Care Glaxo Career Development Award. \$5,000. 1993.

Canadian Government Canadian Studies Research Award. \$4,500. 1992.

Expert Witness

Independent Living Center of Southern California, et al. v. City of Los Angeles, et al. Case No. 12-CV-0051 FMO (PJWx) (C.D. Cal.)

The Fortune Society, Inc. v. Sandcastle Towers Housing Development Fund Corp., et al. Case No. 1:14-cv-6410 (E.D.N.Y.)

BBC Baymeadows, LLC v. City of Ridgeland. Case No. 3:14-cv-00676 (SD. Miss.)

Sunchase of Ridgeland, Ltd. et al. v. City of Ridgeland. Case No: 3:14-cv-00938-HTW LRA (S.D. Miss.)

Shaber et al., v. Pinebrook Estates, LLC, et al. Case No. 3113-CV-017 (S.D. Ohio)

Everett et al. v. Pitt County Bd. of Education. Case No. 6:69-CV-702-H (E.D.N.C.)

Greater New Orleans Fair Housing Action Center et al. v. St. Bernard Parish et al. Case No. 2:12-cv-322 (E.D. La.)

Latinos Unidos del Valle del Napa Y Solano, et al. v. County of Napa. California Superior Court

The Inclusive Communities Project, Inc. v. The Texas Department of Community Affairs, et al. Case No. 3:08-CV-00546-D (N.D. Tex.)

The Inclusive Communities Project, Inc. v. The Town of Flower Mound. Case No. 4:08-CV-0455 (N.D. Tex.)

Jerry R. Kennedy, et al., v. The City of Zanesville, et al. Case No. C2:03-CV-1047 (S. D. Ohio)

Anderson Group, LLC v. City of Saratoga Springs. Case No. 05-cv-1369 GLS/DRH (N.D.N.Y.)

Antonia Manuel et al v. City of Lake Worth. Case No. 06-81143 (S.D. Fla.)

Shirley Berry, et al. v. Town of Tarboro, et al.. Case No. 4:01 CV-140-H3 (E.D.N.C.)

State v. Nicholas Jason Bryant. Case No. 04-CR-579 (Douglas County Superior Court, Georgia)

Reports, Paper Presentations and Seminars

“Recruiting the Next Generation of Civil Rights Experts.” NAACP Legal Defense and Education Fund Airlie Meeting, Airlie, VA., October 13, 2017.

“Disparate Impact Analysis.” Legal Services of New Jersey Annual Meeting, January 26, 2017.

“Disruptive Demographic and the North Carolina Workforce.” Manufacturing Summit Annual

The Changing Face of Education,” College Access Summit, Appalachian State University, Boone, N.C., April 18, 2016.

“Disparate Impact Evidence in Fair Housing Litigation.” National Legal Aide and Defenders Litigation Directors Meeting, Park City, Utah, July 10, 2016.

“Planning Racial Inequality.” University of North Carolina Global Research Institute, Chapel Hill, N.C., February 20, 2016.

Meeting, North Carolina Chamber of Commerce, Greensboro, N.C., June 4, 2015.

“Local Political Geography and Racial Inequality: Spatial Evidence from Advocacy and Litigation.” Center for Urban and Regional Studies, University of North Carolina at Chapel Hill, February 25, 2015.

“Local Political Geography and Racial Inequality.” Kenan Institute on Ethics, Duke University, February 8, 2015.

“Local Political Geography and Institutionalized Racial Inequality.” Bowdoin College, October 24, 2013.

“Assessing Rockingham County’s Economic Development Landscape.” Allan M. Parnell and James H. Johnson, Jr., October, 2012, Prepared for the Reidsville Area Foundation.

“Projecting Enrollment Demand at Central Piedmont Community College, 2012–2022.” Stephen Appold, James H. Johnson, Jr. and Allan M. Parnell, Prepared for Central Piedmont Community College, October 2012.

“Demographic Trends in the South” NAACP LDF, Airlie, VA., October 12, 2012.

“Disparate Impact Theory, Housing and Civil Rights.” National Legal Aid and Defenders Litigation Directors Meeting, Austin, TX, July, 2012.

“Disruptive Demographics: Implications for K-12 Education.” Summer Leadership Conference, Western Region Education Services, Alliance, Asheville, NC, June 2012.

“Disruptive Demographics and the American South.” James H. Johnson, Jr. and Allan M. Parnell, University of North Carolina. FEDEX Global Education Center, Future of the South, April, 2012.

“Evidence in Support of Disparate Impact Claims.” National Legal Aid and Defenders, Washington, D.C., December, 2011.

Rockingham County Competitiveness Assessment. James H. Johnson, Jr. and Allan M. Parnell, January 2011, Prepared for the Reidsville Area Foundation.

“Uses of Census Data in Housing Litigation.” National Legal Aid and Defenders, Chicago, July, 2010.

“Local Political Geography and Institutionalized Racial Inequality.” University of Alberta. Edmonton, Alberta, March 24, 2010.

“Modern Techniques to Investigate and Prove Title VI Discrimination in the Provision of Services.” U.S. Department of Justice, 2009 Title VI Conference: Celebrating the 45th Anniversary of the Legislation and Exploring Current Issues in Enforcement, July 20, 2009.

“Kennedy v. Zanesville: Legal and Expert Issues in a Landmark Civil Rights Case.” Reed Colfax and Allan M. Parnell, University of North Carolina School of Law, April 13, 2009.

“Exposing Invisible Fences: GIS Analysis in Civil Rights Litigation.” Department of Sociology, University of Illinois-Champagne-Urbana, March 13, 2009.

“Kennedy v. Zanesville: Successful Application of GIS Analysis in Civil Rights Litigation.” Presented at Housing Justice Network Annual Meeting. Washington, D.C. December 14, 2008.

“Local Political Geography and Institutionalized Racial Inequality.” Department of Sociology, University of Oklahoma, October 31, 2008.

“(Un)Safe at Home: The Health Consequences of Sub-standard Farm Labor Housing.” Don Villarejo, Marc Schenker, Ann Moss Joyner, Allan M. Parnell. Commissioned by California Rural Legal Assistance and The California Endowment, Presentation at The Rural Justice Forum, Los Angeles, October 27, 2008.

“Demographic Trends in North Carolina: Diversity and Aging.” Wake Partnership for Education, Raleigh, N.C., October 13, 2009.

“People on the Move: Implications for Health Care.” ACS Healthcare Solutions Trendsetters Conference, Amelia Island, FL., September 26, 2008.

“Mapping Inequality.” California Rural Legal Assistance Plenary Presentation, Monterrey, CA, May 5, 2009.

“Spatial Inequality.” Northwest Justice Project, Seattle, April 28, 2008.

“Mapping the Changing Racial Ecology of a Small American City: Methodological Lessons from Landscape Ecology.” Allan M. Parnell, Ben Marsh, and Daniel Licher. Presented at the Annual Meetings of the Association of American Geographers, Boston, 2008.

“Local Political Geography and Institutionalized Racial Inequality.” Center for Social and Demographic Analysis, University at Albany, SUNY, March 14, 2008.

“Local Political Geography and Institutionalized Racial Inequality.” University of North Carolina Center for Urban and Regional Studies, Chapel Hill, N.C., November 2, 2007.

“Local Political Geography and Racial Residential Segregation.” Southern Demographic Association Annual Meeting, Birmingham, AL., October 13, 2007.

“Applications of GIS: Municipal Underbounding.” 2006 Hispanic Bar Association Meeting, San Francisco, September 1, 2006.

“GIS Application in Civil Rights,” National Legal Aid and Defenders Litigation Directors Conference, Snow Bird, Utah, June 2, 2006.

“Assessing the Effectiveness of Section 5 Pre-clearance of Annexations in North Carolina.” Allan M. Parnell, Ben Marsh and Anita S. Earls. Presented at Voting Rights Research Initiative Conference, Warren Institute, University of California Law School, Washington, DC, February 12, 2006.

“Racial Residential Segregation in Small North Carolina Towns.” Carolina Population Center, University of North Carolina at Chapel Hill, November 17, 2005.

“Gerrymandering Racial Residential Segregation.” Center for Urban and Regional Analysis, Ohio State University, May 13, 2005.

“The Persistence of Political Segregation: Racial Underbounding in North Carolina.” Allan M. Parnell, Ann Moss Joyner, Ben Marsh and Carolyn J. Christman, Presented at Invisible Fences Conference, University Of North Carolina Law School, Chapel Hill, November 12, 2004.

“Medicare and Longevity in International Perspective.” William H. Dow and Allan M. Parnell, Max Plank Institute for Demographic Studies, Rostock, Germany, October 1, 2003.

“Addressing Racial Disparities in Local Government Actions.” Presentation to the University of North Carolina School of Law Center for Civil Rights Annual Board Meeting, April 8, 2003.

“Annexation and Racial Exclusion.” Ann Moss Joyner and Allan Parnell. University of North Carolina Institute of Government, December 9, 2003.

“Racial Exclusion: The Case of Mebane, North Carolina.” Board Meeting of the UNC Law School Center of Civil Rights, April 18, 2003.

“The North Carolina State Abortion Law as a Natural Experiment.” Allan Parnell and S. Philip Morgan. Presented at the Annual Meeting of the Population Association of America, New York, 1999.

“Changes in Abortion Funding and Pregnancy Outcomes.” Allan M. Parnell, Philip Cook, Michael Moore and Deanna Pagnini. Presented at the 1996 Annual Meeting of the Population Association of America, New Orleans, La.

“The Functional and Health Status of Older Australian Couples.” Allan M. Parnell, Max A. Woodbury and Gary R. Andrews. Presented at the 1995 Annual Meeting of the Gerontological Society of America, Los Angeles, Ca. and the Annual Meeting of the Southern Demographic Association, Richmond, Va.

“Family Support and the Probability of Institutionalization.” Presented at the Annual Meeting of the Gerontological Society of America, Los Angeles, Ca., 1995.

“Application of Individual-Level Multistate Models with Union Histories.” Seminar in the Department of Demography, Australia National University, July 22, 1995.

“Multistate Union Models in the United States and Canada.” With Carol J. Patterson. Presented at the 1993 Annual Meeting of the Population Association of America, San Francisco, Ca.

“Applications of Grade of Membership Models in Family Demography.” Carolina Population Center Seminar, January 12, 1995.

“Family Patterns of Health and Functional Ability.” Allan M. Parnell George C. Myers and Carol J. Patterson. Presented at the AHEAD Early Results Workshop, ISR, Ann Arbor, MI., Oct 11, 1994.

“Third World Population Growth and U.S. Security.” Allan M. Parnell and Robert Gardner. Presented at the Navy and Marine Intelligence Training Center, Virginia Beach, VA., August 22, 1994.

“Conservative Religion and Family Formation.” John Wilson, Allan M. Parnell and Deanna Pagnini. Presented at the Annual Meeting of the Southern Sociological Society, Raleigh, N.C. 1994.

“Multistate Models of Union Histories in Canada.” Allan M. Parnell, Carol J. Patterson. Presented at the Annual Meeting of the Southern Sociological Society, Raleigh, N.C. ,1994.

“Methods of Family Demography.” Presented at the Russian Academy of Mathematics and Economics, St. Petersburg, Russia, January 7, 1994.

“Informal Support Among the Elderly in Australia.” Allan M. Parnell, Deanna Pagnini and Gary Andrews. Presented at the Annual Meeting of the Gerontological Society of America, New Orleans, LA, 1993.

“Union Stability in Canada.” Allan M. Parnell, V.S. Thomas and G. O'Neill. Presented at the Annual Meeting of the Population Association of America, Cincinnati, Ohio, 1993.

“Nonmarital Cohabitation in Canada.” Allan M. Parnell, G. O'Neill and V.S. Thomas. Presented at the Annual Meeting of the Southern Demographic Association, Charleston, S.C., 1992.

“Cohort Succession Prospects: A Cross-National View.” George C. Myers and Allan M. Parnell. Presented at the 1992 Intercongress Meeting of the Committee on Aging of the International Sociological Association, Stockholm, 1992.

“Women’s Work and Breastfeeding in Ghana: An Analysis of the Ghana Demographic and Health Survey.” Kofi D. Benefo and Allan M. Parnell. Presented at the Demographic and Health Survey World Conference, August 5, 1991, Washington, DC., 1988.

“Health Consequences of Family Planning Programs.” Presented at the Fellows Seminar, Population Reference Bureau, June 18, 1989.

“Family Planning and the Health of Women and Children in the Developing World.” Presented at Bucknell University, April 6, 1989.

“Remarriage in Tangshan: Social Response to a Natural Disaster.” Dai Kejing,Chen Xiangming and Allan M. Parnell. Annual meeting of the Southern Sociological Society, Nashville, 1988.

“How Important is Marriage, Anyhow?” Ronald R. Rindfuss and Allan M. Parnell. Annual meeting of the Population Association of America, San Francisco, California. 1986.

“Delayed Childbearing Among Malaysian Chinese: A Deviation Within the Chinese Fertility Pattern.” Allan M. Parnell and Roger Nemeth. Paper presented at the annual meeting of the Canadian Population Society, Ottawa, Ontario, 1982.